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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/847,554	05/02/2001	Roland Gilbert	BAE13-US	5977

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MAINE & ASMUS
100 MAIN STREET
P O BOX 3445
NASHUA, NH 03061-3445

EXAMINER

TORRES, MARCOS L

ART UNIT	PAPER NUMBER
2683	5

DATE MAILED: 05/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/847,554

Applicant(s)

GILBERT, ROLAND

Examiner

Marcos L Torres

Art Unit

2683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-17 is/are allowed.
- 6) ☒ Claim(s) 18-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments see pages 8-12, filed 12-18-2003, with respect to claims 1-17 have been fully considered and are persuasive. The rejection of claims 1-17 has been withdrawn.
2. Applicant's arguments with respect to claims 18-20 have been considered but are not persuasive.
3. In response to applicant's arguments against the dates of the references, the filing date of the references are Barber: September 12, 1999; Sievenpiper: March 29, 2000 and Izadpanah: which is a continuation of an application filed August 12, 1999. All dates of the references are before the priority date of 05-02-2000.
4. In response to applicant's arguments that Izadpanah, Barber and Sievenpiper fails to disclose an RF actuated MEMS switch receiving an RF control signal at a predetermined frequency and in response connecting at least two sub-elements. Izadpanah discloses actuating a MEMS switch by receiving an control signal and in response connecting at least two sub-elements (see par. 0015-25) And Barber discloses an RF actuated MEMS switch receiving an RF control signal at a predetermined frequency and in response connecting at least two sub-elements (see col. 10, line 49 – col. 11, line 20; col. 12, line 63 – col. 13, line 3: col. 6, line 41– col. 7, line 8). The current rejection in record regarding claims 18-20 stands.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Izadpanah in view Barber, and further in view of Sievenpiper.

As to claims 18-20, Izadpanah discloses an RF-actuated microelectromechanical systems (MEMS) switch module (see par. 0002), comprising: a) a MEMS switch element having at least two switching ports alternately connectable one to the other upon application of a control voltage at a control voltage port of said MEMS switch (see par. 0015); an antenna for receiving an externally-generated RF control signal having a predetermined frequency, and providing an antenna output signal representative thereof, said antenna being tuned to said predetermined frequency (see par. 0024-0025); MEMS switch element is bi-stable, whereby said at least two switching ports are alternately connectable to and disconnected from one another upon application of said

externally-generated RF control signal (see par.0015-0018). Izadpanah do not specifically disclose a tuned circuit operatively connected to said antenna and having an input port for receiving said antenna output signal and, in cooperation with said antenna, providing a circuit substantially resonant at a frequency related to said predetermined frequency of said RF control signal, said tuned circuit providing a tuned circuit output signal; and detector means operatively connected to said tuned circuit for receiving said tuned circuit output signal and generating a DC voltage representative thereof, said detector means also being operatively connected to said control voltage port of said MEMS switch; whereby said two switching ports of said MEMS switch are alternately connected to and disconnected from one another when said externally-generated RIF control signal is received at said antenna. Barber discloses a tuned circuit having an input port for receiving said antenna output signal and, in cooperation with said antenna, providing a circuit substantially resonant at a frequency related to said predetermined frequency of said RF control signal, said tuned circuit providing a tuned circuit output signal (see col. 3, lines 11-19; col. 7, lines 1-5). Livingston discloses detector means for receiving a tuned circuit output signal and generating a DC voltage representative thereof, said detector means also being operatively connected to said control voltage port of a MEMS switch (see col. 5, lines 55-58). Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the invention to combine these teachings for enhanced dynamic reconfiguration capabilities.

Allowable Subject Matter

8. Claims 1-17 are allowed.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Berenz U.S. Patent US006069540A
- b. Herd U.S. Patent US006198438B1
- c. Livingston U.S. Publication US 20010040530A1

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any response to this Office Action should be mailed to:

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Or faxed to:

(703) 703-872-9306

For formal communication intended for entry, informal communication or draft communication; in the case of informal or draft communication, please label "PROPOSED" or "DRAFT"

Hand delivered responses should be brought to:

Crystal Park II
2121 Crystal Drive
Arlington, VA
Sixth Floor (Receptionist)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marcos L Torres whose telephone number is 703-305-1478. The examiner can normally be reached on 8:00am-5:30pm alt. friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William G Trost can be reached on 703-308-5318. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Marcos L Torres
Examiner
Art Unit 2683

Application/Control Number: 09/847,554.
Art Unit: 2683

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A handwritten signature in black ink, appearing to read 'W. Trost', with a long horizontal flourish extending to the right.

**WILLIAM TROST
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600**